H10979

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. RA-10-13-01

Registry No. H-10979

LOCALITY

State ALASKA

General Locality SHELIKOF STRAIT

Sublocality SOUTH OF CAPE KEKURNOI

2001

CHIEF OF PARTY

Captain James C. Gardner, NOAA

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28
(11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTER NO.

HYDROGRAPHIC TITLE SHEET

H-10979

INSTRUCTIONS - The hydrographic sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the office.

FIELD NO.
RA-10-13-01

State: **Alaska**

General Locality: **Shelikof Strait**

Sublocality: **South of Cape Kekurnoi**

Scale: **1:10,000** Date of Survey: **5/24/2001 -6/22/2001**

Instructions Date: **4/30/01** Project No. **OPR-P164-RA**

Vessel: **2121, 2123, 2124 , 2125, 2126, 2127**

Chief of Party: **Captain J. C. Gardner, NOAA**

Surveyed by: **RAINIER Personnel**

Soundings taken by echo sounder, hand lead, pole: **Knudsen 320M, RESON 810, Seabeam 1180**

Graphic record scaled by: **RAINIER Personnel**

Graphic record checked by: **RAINIER Personnel**

Evaluation by: **R. Davies** Automated plot by: **HP DesignJet 1050C**

Verification by: **E. Domingo, R. Mayor, R. Davies**

Soundings in: **Fathoms** at **MLLW**

REMARKS: **Time in UTC. Revisions and annotations appearing as endnotes were generated during office processing.**

All depths listed in this report are referenced to mean lower low water unless otherwise noted.

Descriptive Report to Accompany Hydrographic Survey H10979

Project OPR-P164-RA
Shelikof Strait, Alaska
Scale 1:10,000
May-June 2001
NOAA Ship RAINIER
Chief of Party: Captain James C. Gardner, NOAA

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-P164-RA, dated April 30, 2001, and the Draft Standing Project Instructions dated April 6, 1998. The purpose of this project is to provide contemporary hydrography with full bottom multibeam coverage in Shelikof Strait, Alaska. The project responds to requests from the Seventeenth U.S. Coast Guard District, the domestic commercial fishing industry, and NOAA.

The survey area is located on the western side of Shelikof Strait, southwest of Cape Kekurnoi. The survey's northern limit is latitude 57°44'30"N and the southern limit is latitude 57°39'00"N. The survey's western limit is longitude 155°23'00"W and the eastern limit is longitude 155°13'00"W. There are no insets or changes to the sheet limit.[1]

One hundred percent shallow-water multibeam (SWMB) coverage was obtained in the survey area in depths 10 meters and deeper. In depths from 4 to 10 meters, SWMB data were obtained at 25-meter line spacing, and in these areas additional coverage was obtained to delineate least depths over features or shoals. Vertical-beam echo sounder (VBES) data were acquired in depths from 4 to 50 meters, at a line spacing of 100 meters, to define the four-meter curve and to aid in the planning of SWMB data acquisition.[2]

Data acquisition was conducted from May 24 to June 22, 2001 (DN 144 to 173).

Figure 1. H10979 Survey Limits.

B. DATA ACQUISITION AND PROCESSING

A complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods can be found in the *OPR-P164-RA-01 Data Acquisition and Processing Report*, submitted under separate cover. Items specific to this survey, and any deviations from the aforementioned report are discussed in the following sections.[3]

B1. Equipment and Vessels

Data were acquired by RAINIER's survey launches (vessel numbers 2121, 2122, 2123, 2125, 2126, and 2127). Vessels 2121, 2123, and 2126 were used to acquire SWMB soundings and sound velocity profiles. Vessel 2125 was used to acquire vertical-beam echo soundings (VBES) and detached positions (DPs) for shoreline verification. Vessel 2122 was used to collect bottom samples. No unusual vessel configurations or problems were encountered during this survey.

B2. Quality Control

Crosslines

Vertical Beam Echo Sounder (VBES) crosslines totaled 3.53 nautical miles, comprising 8.56% of mainscheme hydrography. VBES crosslines generally agreed within 1 meter of mainscheme VBES hydrography.

Shallow-Water Multibeam (SWMB) crosslines totaled 10.49 nautical miles, comprising 14.11% of SWMB hydrography. The Quality Control Report (CARIS HIPS) for the checkline file averaged 89.33%, with a depth tolerance factor of 0.013, which conforms to International Hydrographic Organization Order 1 specifications detailed in Special Publication S-44, Edition 4, as well as NOS Hydrographic Surveys Specifications and Deliverables Manual. See Appendix V for the detailed report.[4]

Junctions

The following contemporary surveys junction with H10979:

Registry #	Scale	Date	Junction side
H10978	1:10,000	2001	West
H9956	1:10,000	1981	East

Comparisons with both H10978 and H9956 compare well, with differences generally less than two fathoms.[5]

Data Quality Factors

Data from vessel 2123 (RA-3) on DN 154 was found to have "stuck" pitch sensor data, resulting in erroneous corrected sounding data. The analog pitch values used by the Elac/SeaBeam system remained constant and did not change with the attitude of the survey vessels (refer to the *OPR-P164-RA-01 Data Acquisition and Processing Report* for a detailed description of the operation of the Elac/SeaBeam 1180 SWMB system). Because the digital pitch and heave data were also logged for these systems, RAINIER personnel were able to replace the faulty analog data with the digital data in HDCS data structure. Once corrected with the digital attitude data, the soundings were compared with adjacent survey lines and

crosslines and found to be of acceptable quality.[6] The submitted HDCS data for this day and vessel includes the digital pitch and heave data in lieu of the usual analog data.

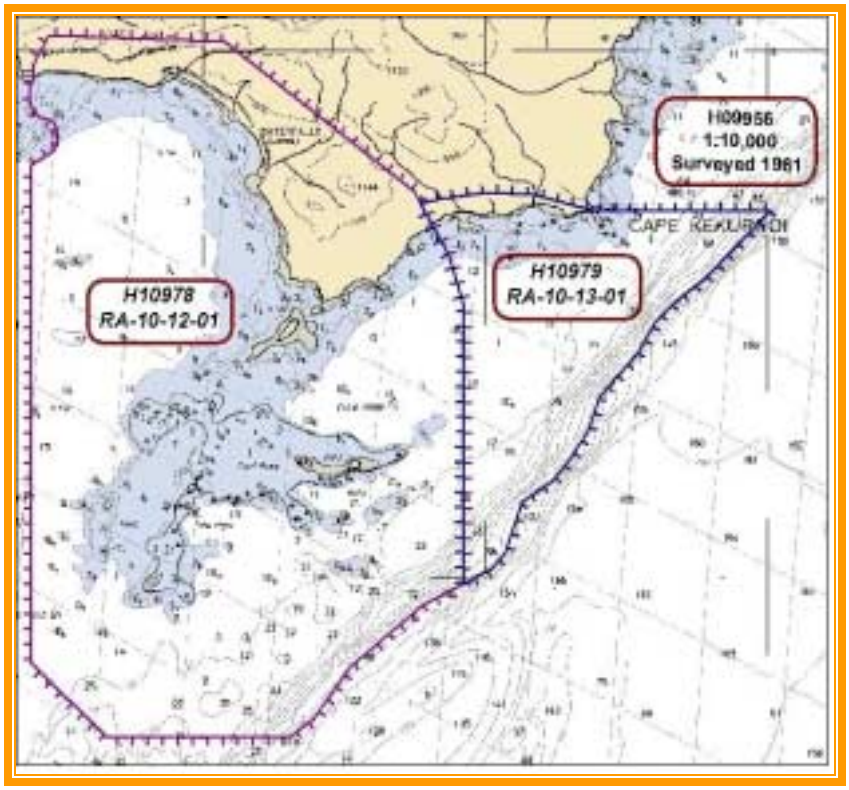


Figure 2. H10979 Junction Surveys.

B3. Data Reduction

Data reduction procedures for survey H10979 conform to those detailed in the *OPR-P164-RA-01 Data Acquisition and Processing Report.*

C. VERTICAL AND HORIZONTAL CONTROL

A complete description of vertical and horizontal control for survey H10979 can be found in the *OPR-P164-RA-01 Horizontal and Vertical Control Report*, submitted under separate cover. A summary of horizontal and vertical control for this survey follows.

Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). Differential GPS (DGPS) was the sole method of positioning. Differential corrections from U.S. Coast Guard beacons at Kodiak Island (313 kHz), Kenai (310 kHz), and Cold Bay (289 kHz) were used during this survey. Launch-to-launch DGPS performance checks were performed weekly in accordance with Section 3.2 of the FPM. Copies of the performance checks are included in the *OPR-P164-RA-01 Horizontal and Vertical Control Report*.

Vertical Control

The vertical datum for this project is Mean Lower-Low Water (MLLW). The operating National Water Level Observation Network (NWLON) station at Kodiak, AK (945-7292) served as control for datum determination of the survey area and the subordinate station as well as provide water level reducers for survey H10979. RAINIER personnel installed a Sutron 8210 "bubbler" tertiary tide gauge at Puale Bay, AK (945-8209), which served as the primary source for water level reducers for survey H10980.

All data were reduced to MLLW using final approved (smooth) tide correctors and zoning obtained from N/OPS1. All HDCS sounding data were reduced using CARIS HIPS version 5.1a for Windows NT. DP data were reduced in HPS. Elevations on DPs have not been corrected to MHW where appropriate. The Hydrographer recommends that the Pacific Hydrographic Branch (PHB) correct all elevations to MHW, including reclassification of features, as necessary.[7] Copies of the request for smooth tides, and Final Tide Note, are included in this report.[8]

D. RESULTS AND RECOMMENDATIONS

D.1 Automated Wreck and Obstruction Information System (AWOIS) Investigations

One AWOIS item was located within the limits of H10979 and investigated during this survey. Investigation methods, results, and charting recommendations have been entered into the Microsoft Access AWOIS database and are submitted with the digital data. A printout of the AWOIS Database form is included in this report.[9]

D.2 Chart Comparison[10]

Survey H10979 was compared with charts 16575 (1st Ed.; April 15, 1989, 1:80,000) and 16580 (11th Ed.; August 18, 2001). There were no Notices to Mariners that affected the survey area since the publication of the charts.[11]

Chart 16575

Depths from survey H10979 were generally zero to two fathoms shoaler than depths on chart 16575. In many instances, this survey found shoaler soundings between charted soundings even though agreement at the positions of the charted depths was good. This can be attributed to increased bottom coverage using SWMB.[12]

Chart 16580

Depths from survey H10979 were generally zero to six fathoms deeper than soundings on chart 16580. [13]

The Hydrographer has determined that data accuracy standards and bottom coverage requirements have been met and survey data are adequate to supersede charted data in their common areas. [14]

D.3 Shoreline

N/NGS3 supplied photogrammetric shoreline data in raster format for TP-00626 [15] for use as source shoreline. The TP-sheet raster image was registered and digitized in MapInfo by RAINIER personnel and the resultant vector data were used in Hypack for field verification. In addition, features shown on the

current editions of charts 16575 and 16580 that were not depicted on any shoreline source document were digitized in MapInfo by RAINIER personnel and displayed in Hypack for field verification.

Method of Shoreline Verification

Shoreline verification was conducted near predicted low water in accordance with the Standing Project Instructions and FPM 6.1 and 6.2. For this survey, the general limit of safe navigation of a survey launch was five to twenty meters offshore of the apparent mean lower-water line. Water depths along this limit of safe navigation were approximately four meters at Mean Lower-Low Water (MLLW). Features inshore of this limit unreachable by survey launch are depicted on the Detached Position and Bottom Sample Plot (DP and BS)[16] as the Hydrographer's approximate representation of the shoreline.

Detached Positions (DPs) taken during shoreline verification were recorded in Hypack and on DP forms, and processed in HPS. These indicate revisions to features, and features not found on the TP-sheet or chart. In addition, hard copies of the TP-sheet and compiled digitized data (boat sheets) were taken into the field and annotated by hand to reflect verification of source features and updates to both the chart and TP-sheet. DP forms are included in Section I of the *Separates to be Included With the Survey Data* [17].

A detailed Detached Position and Bottom Sample Plot (DP and BS plot), in both paper copy and digital MapInfo format, is provided showing all detached positions and bottom samples with notes relating to each feature. The updated shoreline and features are also depicted on the final sounding plot.

Verified TP-sheet shoreline that did not require revision is in the MapInfo table "H10979_Shoreline". New features, changes to the shoreline, and features verified from applicable TP-sheets are depicted in the MapInfo table "H10979_Shoreline_Updates." Charted rocks, when used for reference purposes, are depicted in the MapInfo table "H10979_Charted_Rocks."

The features found during this survey generally matched those of the source and charted shoreline. The TP-sheet shoreline was found to be very accurate in its depiction of high water features, requiring little revision. In many cases, the TP-sheet ledges and foul limits required revision, and the changes are reflected on the DP and BS Plots, and in the MapInfo table "H10979_Shoreline_Updates."[18]

Source Shoreline Changes and New Features

The TP-sheet foul limit from Cape Kekurnoi west to the western limit of survey H10979 was revised by the Hydrographer. The revisions are based upon several detached positions, the shoreline buffer line, and SWMB hydrography. In the vicinity of 57º42'55.79"N, 155º19'24.73"W[19] (361,433E, 6,400,194N) the foul area extending south from shore should be revised to two distinct areas (Pos# 70019 – 70022).[20] The Hydrographer recommends charting the foul areas as depicted on the DP and BS Plot.[21]

The TP-sheet ledge at 57º43'23.10"N, 155º20'05.80"W (360,936.6E, 6,400,277.4N) should be extended further east as depicted on the DP and BS Plot. The limits shown are approximate, as the ledge was located inside a foul area and not reachable by survey launch. The seaward extent of this ledge, near 57º 43"18.40"N, 155º 20'05.00"W (360,943.9E, 6,400,131.4N) has been revised based on 100% SWMB collection. The Hydrographer recommends charting the ledge as depicted on the DP and BS Plot.[22]

Charted Features

The charted (16580) rock at Pos# 51102 (57º43'18.07"N, 155º19'32.78"W; 361,476.8E, 6,400,102.9N) was disproved in its charted position after conducting a five-minute visual and VBES star pattern search

(RA5, DN 150). Water visibility in this area was clear to a depth of three meters. The Hydrographer believes this rock represents the TS islet and rock located 140 meters east of this position. The Hydrographer recommends charting the area based on the DP and BS Plot.[23]

The charted (16580) rock at 57º42'58.7"N, 155º19'09.8"W (361020.1E, 6399930.7N) was disproved with 100% SWMB. Depths ranged from 9 to 11 fathoms. The Hydrographer recommends removing the rock from the chart.[24]

The charted (16575) rock at Pos# 51086 (57º43'21.26"N, 155º19'24.69"W; 361,613.9E, 6,400,196.9N) was disproved after conducting a three-minute visual and VBES search (RA5, DN 150). Water visibility in this area was clear to a depth of three meters. This rock was originally depicted on H7195 with a height of five feet above MLLW. A TS-rock 160 meters west is believed to be the survey rock and is correctly positioned. The Hydrographer recommends removing the rock at Pos# 51086 from the chart and charting the rocks depicted on the DP and BS Plot.[25]

The charted (16575) rock at Pos# 50879 (57º43'29.62"N, 155º17'27.81"W; 363,556.0E, 6,400,389.4N) was disproved after conducting a five-minute visual and VBES star pattern search (RA5, DN 150). The position of the rock was also partially covered with SWMB. Water visibility in this area was clear to a depth of three meters. The Hydrographer recommends removing the rock from the chart.[26]

The charted (16575) submerged rock at Pos# 50910 (57º43'28.87"N, 155º17'38.22"W; 363,382.9E, 6,400,371.9N) was disproved after conducting a ten-minute visual and VBES star pattern search (RA5, DN 150). The position of the rock was also partially covered with SWMB. Water visibility in this area was clear to a depth of three meters. The Hydrographer recommends removing the rock from the chart.[27]

Recommendations

The Hydrographer recommends that the shoreline as depicted on the Detached Position and Bottom Sample plot and final sounding plot supersede and complement shoreline information compiled on the TP-sheets and charts as noted. These revisions are recorded in the MapInfo digital files named "H10979_Shoreline" and "H10979_Shoreline_Updates". In addition, field notes made by the Hydrographer, including verification of source features and descriptions of shoreline classification, are submitted in the digital MapInfo file "H10979_Shoreline_Notes."[28]

D.4 Dangers to Navigation

Seven dangers to navigation were found during H10979 and reported to the Marine Chart Division (MCD) for verification and final submission to the Seventeenth Coast Guard District on January 29, 2002. A copy of the Danger to Navigation Report is in this report. [29]

D.5 Aids to Navigation

No aids to navigation (ATONs) were located within the limits of H10979.[30]

D.6 Miscellaneous

Bottom samples were collected and are depicted on the DP and BS Plot.[31]

E. APPROVAL

As Chief of Party, I have ensured that standard field surveying and processing procedures were followed in producing this examination in accordance with the Hydrographic Manual, Fourth Edition; the Hydrographic Survey Guidelines; the Field Procedures Manual, and the NOS Hydrographic Surveys Specifications and Deliverables, as updated for 2001.

The digital data and supporting records have been reviewed by me, are considered complete and adequate for charting purposes, and are approved. All records are forwarded for final review and processing to N/CS34, Pacific Hydrographic Branch.

Survey H10979 is complete and adequate to supersede charted soundings in their common areas. No additional work is required for this survey.[32]

Listed below are supplemental reports submitted separately which contain additional information relevant to this survey:

Title	Date Sent	Office
Data Acquisition and Processing Report for OPR-P164-RA-01	December 14, 2001	N/CS34
Horizontal and Vertical Control Report for OPR-P164-RA-01	December 14, 2001	N/CS34
Tides and Water Levels Package for OPR-P164-RA-01	July 16, 2001	N/OPS1
Coast Pilot Report for OPR-P164-RA-01	TBD	N/CS26

Approved and Forwarded: _____ Date: 1-29-02

James C. Gardner
Captain, NOAA
Commanding Officer

In addition, the following individuals were also responsible for overseeing data acquisition and processing of this survey:

Survey Sheet Manager: _____

Jennifer Dowling
Lieutenant (junior grade), NOAA

Field Operations Officer: _____

Edward J. Van Den Ameele
Lieutenant, NOAA

[1] PHB revision – The northern limit of the survey is latitude 57/43/57N and the southern limit is latitude 57/39/51N. The survey's eastern limit is longitude 155/14/45Wand the western limit is longitude 155/20/57W.

[2] PHB revision – Concur; the bottom consists mainly of shells with additional components of stones. Depths range from 0 to 145 fathoms.

[3]PHB revision - Office processing of survey data was conducted using the same Computer Aided Resource Information System (CARIS), Hydrographic Processing System (HPS) and PYDRO used by the hydrographer. The smooth sheet was compiled with Microstation 95.

Processed digital data for this survey exists in the standard HPS format, a database format using the .dbf extension, CARIS HDCS format, and PYDRO Preliminary Smooth Sheet (PSS) format, with .fsl and other extensions. In addition, the smooth sheet drawing is filed in the Microstation format, .dgn extension. A copy of the smooth sheet file has been forwarded to the Hydrographic Surveys Division and a backup copy retained at PHB.

The drawing files necessarily contain information that is not part of the HPS features and PYDRO sounding data sets, such as geographic names text, line-type data, and minor symbolization. In addition, those soundings deleted from the drawing for clarity purposes remain unrevised in the PYDRO digital files to preserve the integrity of the original hydrographic data set. Cartographic codes used to describe the digital data are those authorized by the Specifications and Deliverables, April 2000.

[4] PHB revision - Filed with the hydrographic data.

[5] PHB revision - The junction with H9956 was not formally completed since this survey was processed previously. A comparison of soundings between the surveys shows close agreement, within two fathoms. Some soundings and features from H9956 been transferred within the common area to better delineate the bottom configuration and to support depth curves common to both surveys.

The junction with survey H-10978 is complete and a "Joins" note has been added to the smooth sheet where applicable. The junction note layer, level 19, in not visible when plotting. Agreement is good between the junctional surveys, within one to two fathoms. One sounding from H10979 has been transferred within the common area to better delineate the bottom configuration and to support depth curves common to both surveys.

[6] PHB revision – Concur

[7] PHB revision – Concur with clarification. All elevations were corrected to MHW or MLLW where appropriate and the correct cartographic code was associated with each feature.

[8] PHB revision – Concur with clarification. Approved tide note, dated October 26, 2001 is attached to this report.

[9] PHB revision – Concur

[10] PHB revision - Digital versions of prior surveys were used for making comparisons with the current survey. The legibility of the prior survey digital image files for these prior surveys is considered fair to good; in some areas the prior survey is illegible.

Prior surveys H-7195 and H-7196 are the source of all charted soundings with the addition of features and soundings the hydrographer submitted as dangers to navigation. Sounding agreement between these priors and the current survey is good, within one to two fathoms. Differences between the prior and present survey is largely due to more modern data acquisition.

A more thorough coverage of the area utilizing the shallow water multibeam (SWMB) system, supplemented by single beam echo sounding system, was accomplished during this survey. This recent survey has provided a better

portrayal of the seafloor morphology, revealing new shoals. Single-beam echo sounding systems were used near shore and in areas deemed too shallow for the safe navigation and effective use of vessels equipped with shallow-water multibeam systems.

Survey H-10979 is adequate to supersede all prior surveys within the area of common coverage.

[11] PHB revision - Concur

[12] PHB revision - Concur

[13] PHB revision – Do not concur; soundings were generally zero to two fathoms shoaler than depths on chart 16580.

[14] PHB revision - Concur

[15] PHB revision - date of photography, June 1976, a class I shoreline map compiled on NAD 27 at a scale of 1:20,000

[16] PHB revision - Filed with the hydrographic data

[17] PHB revision - Filed with the hydrographic data

[18] PHB revision – Concur, detached positions and shoreline notes were analyzed during office processing and is shown on the smooth sheet as warranted.

[19] PHB revision – should be latitude 57°43’20.96”N, longitude 155°19’35.61”W

[20] PHB revision –Concur with clarification, chart foul areas with foul notes at latitude 57°43’24.27”N, longitude 155°19’3.32”W and latitude 57°43’5.19N, longitude 155°19’26.18”W

[21] PHB revision – Concur with clarification, chart area as shown on the smooth sheet.

[22] PHB revision - Concur with clarification, chart area as shown on the smooth sheet.

[23] PHB revision - Concur with clarification, chart area as shown on the smooth sheet.

[24] PHB revision - Concur, chart area as shown on the smooth sheet.

[25] PHB revision –Do not concur, inadequate single beam investigation and visual search at a high stage of tide does not warrant the removal of the charted rock. The charted rock originates from prior survey H-7195 and was transferred to the smooth sheet at latitude 57/43/21.25N, longitude 155/19/24.69W. Retain charted rock at its current charted position.

[26] PHB revision - Concur, chart area based on the present survey information.

[27] PHB revision - Concur, chart area based on the present survey information.

[28] PHB revision - Concur, see smooth sheet for all shoreline updates, features and notes

[29] PHB revision – Concur

[30] PHB revision - Concur

[31] PHB revision - and smooth sheet

[32] PHB revision – Concur, chart area based on the present survey information

Subject: **DtoN Report RA-01-02 (H10979)**
Date: Tue, 29 Jan 2002 21:16:14 +0000
From: "FOO Rainier" <foo.rainier@ranems.pmc.noaa.gov>
Reply-To: foo.rainier@noaa.gov
Organization: NOAA Ship RAINIER
To: lyn.preston@noaa.gov
CC: Don Haines <Don.Haines@noaa.gov>, Dennis Hill <Dennis.Hill@noaa.gov>, CO Rainier <co.rainier@ranems.pmc.noaa.gov>

It is requested that the attached dangers to navigation be included in the Local Notice to Mariners. The NOAA Ship RAINIER positioned these features while conducting hydrographic survey H10979 in Shelikof Strait, Alaska, in May - July 2001. Detailed information is contained in the attached Danger to Navigation Report, ASCII file, and corresponding TIF image. Please route this information to U.S. Coast Guard District 17 in a timely manner. For further information, contact the Field Operations Officer at foo.rainier@noaa.gov.

--

LT Edward J. Van Den Ameele, NOAA
Field Operations Officer
NOAA Ship RAINIER
foo.rainier@noaa.gov
www.moc.noaa.gov/ra
1-206-553-4794 in port Seattle

H10979_DTON.zip	**Name:** H10979_DTON.zip **Type:** Zip Compressed Data (application/x-zip-compressed) **Encoding:** base64 **Download Status:** Not downloaded with message

Danger to Navigation Report

Hydrographic Survey Registry Number: H10979

ADVANCE INFORMATION

Survey Title: State: Alaska
Locality: Shelikof Strait
Sub-locality: South of Cape Kekurnoi

Project Number: OPR-P164-RA-01

Survey Dates: May-June, 2001

Depths are reduced to Mean Lower Low Water using approved (smooth) tides.
Positions are based on the NAD83 horizontal datum.

CHARTS AFFECTED:

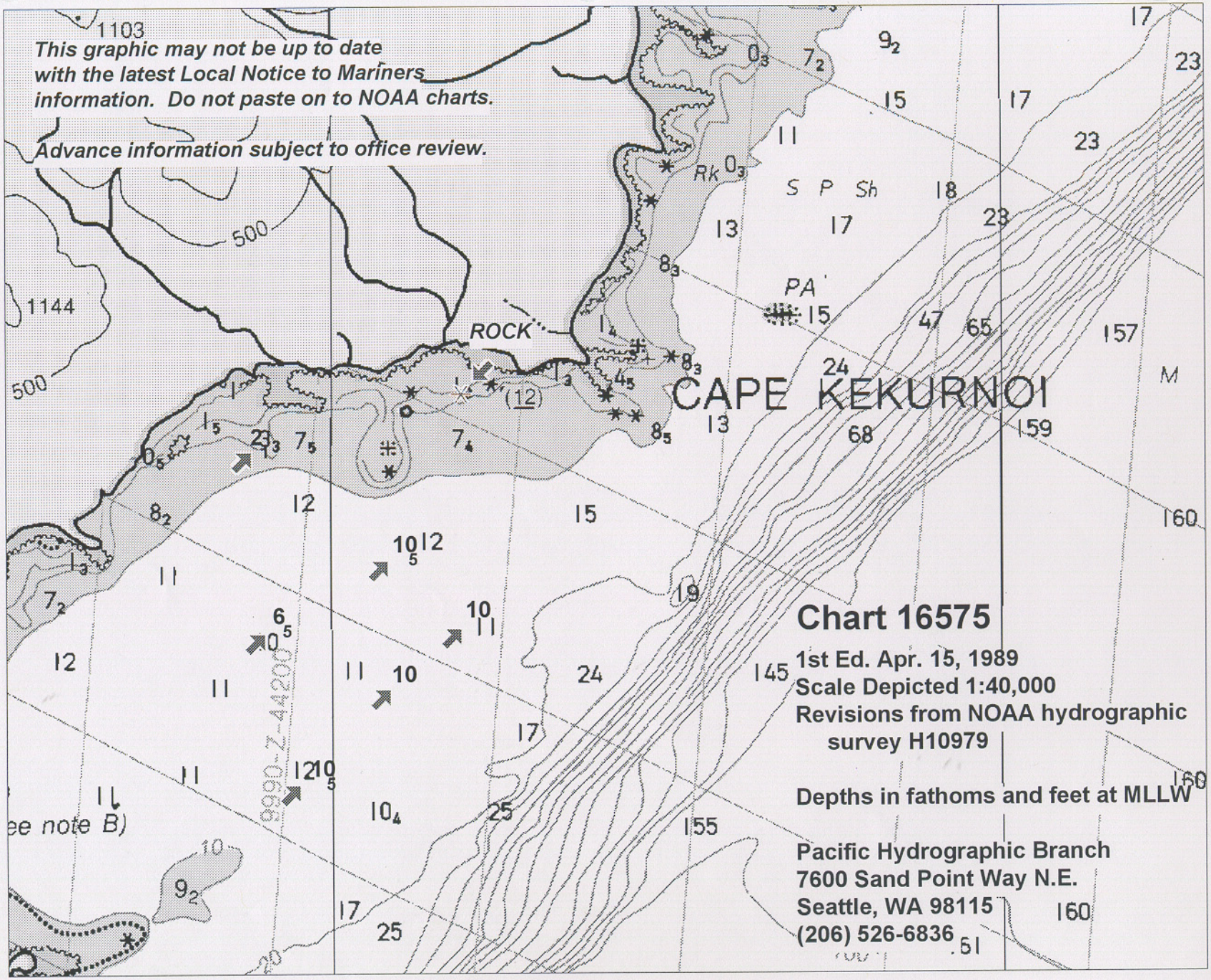
Chart	Scale	Edition	Date
16575	1:80,000	1st	4/15/1989
16580	1:350,000	11th	8/18/2001

DANGERS:

Feature	Depth(fms,feet)	Latitude	Longitude
Rock	Awash	57°43'20.650"N	155°19'01.810"W
Sounding	2_1	57°43'09.232"N	155°20'33.827"W
Sounding	6_5	57°42'26.087"N	155°20'24.000"W
Sounding	10	57°42'27.374"N	155°18'54.660"W
Sounding	10	57°42'11.972"N	155°19'27.808"W
Sounding	10_5	57°41'49.502"N	155°20'04.613"W
Sounding	10_5	57°42'43.152"N	155°19'27.445"W

COMMENTS:

Questions concerning this report should be directed to the Chief, Pacific Hydrographic Branch at (206) 526-6836.



ADVANCE INFORMATION

RECRD	50784	VESSLTERMS	WATER BALL	CHART	16580	AREA	P
		CARTOCODE	0100	SNDINGCODE		DEPTH	0

LAT83	57/43/39.45	LONG83	155/16/37.50	NATIVDATUM	6
LATDEC:	57.727625	LONDEC:	155.27708333333	GPQUALITY	Low
				GPSOURCE	Direct

PROJECT	OPR-P164	ITEMSTATUS	Assigned	SEARCHTYPE	Full
RADIUS		INIT	MCR	ASSIGNED	4/15/00
TECNIQ	MB,VS,DI,SD				
Techniqnote	SEARCH 200M OUT FROM AN AXIS DRAWN BETWEEN POS.57-43-51 N 155-16-13.2 W AND 57-43-06.7N 155-17-52.2 W				

History

HISTORY
LNM26/77 (5/28/77) 17TH CGD; 36FT LENGTH; LT BL HULL DK BL SUPERSTRUCTURE;
SUBM DANG WK, F/V WATER BALL, RAN AGROUND IN PA LAT.57-43.7N, LONG.155-16.5W.
H9956/81--OPR-P146-FA-81; MINIRANGER III (R/A); WK NOT LOCATED. MAINSCHEME
LINE SPLIT TO 50M MINIMUM 250M RADIUS. NO DIVE INVESTIGATION. WK CONSIDERED
NOT DISPROVED; EVAL RECOMMENDS RETAINING AS CHARTED. (ENTERED 10/84 MSM)

Fieldnote

INVESTIGATION

DATE(S): 05/24/01 (DN:144), 06/03/01 (DN:154)

HYDROGRAPHIC SURVEY NUMBER:10979

VN:2125 TIME: 1859-1907; VN:2121 TIME: 2043-2127

INVESTIGATION METHODS USED: (IE DI, 200% SIDE SCAN SONAR, ECHO SOUNDER) VBES, SWMB

SURVEYED POSITION: LAT. 57 43 39.4 N LON. 155 16 37.5W

POSITION DETERMINED BY: DIFFERENTIAL GPS

INVESTIGATION SUMMARY: DN: 144 5 minute star search pattern with VBES, VN 2125. Object not found.
DN: 155 100% SWMB collection over area and researched with 1m DTM. Several features were evident in the SWMB data. One isolated significant feature was located at 57/43/43.5N, 155/16/18.0W, but is approximately 40m x 50m and considered too large to be the F/V WATER BALL. Several small features were also found in the SWMB data, with dimensions similar to the F/V; however they appeared to be a boulders within a rocky area as there were numerous similar in size within a 220-meter area centered around 57/43/37.4N, 155/16/39.9W. Most of the search area is rocky in nature and any wreck is not likely to stand out from the boulders. The AWOIS search area was too also deep for a dive investigation. No isolated feature was located in the search area with the dimensions of the F/V Water Ball.

CHARTING RECOMMENDATION (HYDROGRAPHER): Remove from chart.

EVALUATOR COMMENTS: Concur, remove from chart

Proprietary

YEARSUNK | NIMANUM

Print Record

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: October 26, 2001

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-P164-RA-2001
HYDROGRAPHIC SHEET: H10979

LOCALITY: Shelikof Strait, AK
TIME PERIOD: May 24 - June 23, 2001

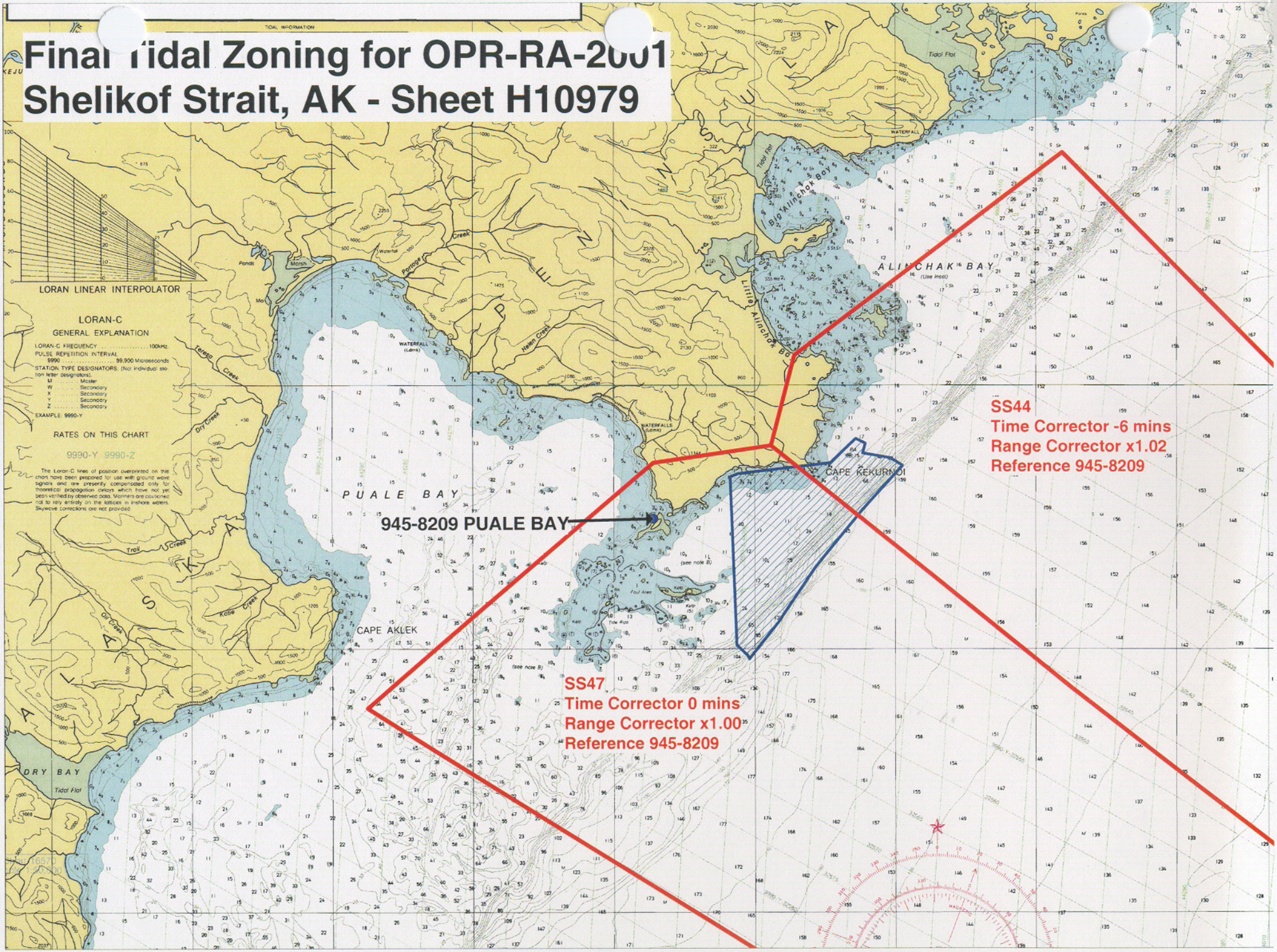
TIDE STATION USED: 945-8209 Puale Bay, AK
Lat. 57° 42.5'N Lon. 155° 23.6'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.504 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: SS44 & SS47.

Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time.

For ----------
CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION


Final Tidal Zoning for OPR-RA-2001
Shelikof Strait, AK - Sheet H10979
SS44
Time Corrector -6 mins
Range Corrector x1.02
Reference 945-8209
945-8209 PUALE BAY
SS47
Time Corrector 0 mins
Range Corrector x1.00
Reference 945-8209
PUALE BAY
CAPE KEKURNOI
CAPE AKLEK
ALINCHAK BAY
DRY BAY
LORAN LINEAR INTERPOLATOR
LORAN-C
GENERAL EXPLANATION
RATES ON THIS CHART
9990-Y 9990-Z

Final tide zone node point locations for **OPR-P164-RA-2001, Sheet H10979.**

Format: Tide Station (in recommended order of use)
Average Time Correction (in minutes)
Range Correction
Longitude in decimal degrees (negative value denotes Longitude West),
Latitude in decimal degrees

	Tide Station Order	AVG Time Correction	Range Correction
Zone SS44	945-8209	-6	1.02
-155.310024 57.759391			
-155.323879 57.730761			
-155.146674 57.654785			
-154.885034 57.546648			
-154.866803 57.554581			
-154.721046 57.594133			
-154.850014 57.661274			
-155.022813 57.754479			
-155.151443 57.823186			
-155.310024 57.759391			
Zone SS47	945-8209	0	1.00
-154.885034 57.546648			
-155.146674 57.654785			
-155.323879 57.730761			
-155.393552 57.725278			
-155.562792 57.647953			
-155.336279 57.572524			
-155.041599 57.475564			
-155.006871 57.49286			
-154.885034 57.546648			

NOAA FORM 77-27(H)
(9-83)

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER
H-10979

RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	2

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDION FILES	1					
ENVELOPES						
VOLUMES						
CAHIERS						
BOXES						

SHORELINE DATA

SHORELINE MAPS (List):

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List):

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	*EVALUATION*	*TOTALS*
POSITIONS ON SHEET			
POSITIONS REVISED			
SOUNDINGS REVISED			
CONTROL STATIONS REVISED			

	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS			
VERIFICATION OF SOUNDINGS			
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET			99
COMPARISON WITH PRIOR SURVEYS AND CHARTS			
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT			13
GEOGRAPHIC NAMES			
OTHER: (Chart Compilation)			19
USE OTHER SIDE OF FORM FOR REMARKS — TOTALS			131

Pre-processing Examination by	*Beginning Date*	*Ending Date*
Application of Field Data by R. Mayor, E. Domingo, R. Davies	*Time (Hours)* 99	*Ending Date*
Verification Check by	*Time (Hours)*	*Ending Date*
Evaluation and Analysis by R. Davies	*Time (Hours)* 13	*Ending Date* 09/23/2003
Inspection by B. Olmstead	*Time (Hours)* 32	*Ending Date* 09/24/2003

U.S. GOVT. PRINTING OFFICE 1983: 764-008/6061

APPROVAL SHEET
H10979

Initial Approvals:

The survey and associated records have been inspected with regard to survey coverage, delineation of the depths curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The survey records and digital data comply with NOS requirements except where noted in the Descriptive Report and are adequate to supersede prior surveys and nautical charts in the common area.

Bruce A. Comstock for Date: 10/10/2003

Dennis Hill
Chief, Cartographic Team
Pacific Hydrographic Branch

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Descriptive Report.

Date: 11/12/03

John E. Lowell, Jr.
Commander, NOAA
Chief, Pacific Hydrographic Branch

SURF / AWOIS

1/7/04 MCR

NOAA FORM 75-96
(10-83)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10979

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
16575	4/18/02	Russ Davis	Full ~~Part~~ Before After Marine Center Approval Signed Via
			Drawing No. Full application of sndgs, features and curves from smooth sheet
16575	1/28/04	Dave Merke	Full ~~Part~~ Before After Marine Center Approval Signed Via
			Drawing No. full application of sndgs, features & curves from SS KW 1/30/04 TH
16580	1/28/04	Dave Merke	Full ~~Part~~ Before After Marine Center Approval Signed Via
			Drawing No. full application of sndgs, features & Curves from SS KW 1/30/04 TH
16013	1/28/04	Dave Merke	Full ~~Part~~ Before After Marine Center Approval Signed Via
			Drawing No. full application of sndgs, features & Curves from SS KW 1/30/04 TH
531	1/28/04	Dave Merke	Full ~~Part~~ Before After Marine Center Approval Signed Via
			Drawing No. full application of sndgs, features & Curves from SS KW 1/30/04 TH
500	1/28/04	Dave Merke	Full Part Before After Marine Center Approval Signed Via
			Drawing No. N/C Due to scale KW 1/30/04 TH
530	1/28/04	Dave Merke	Full Part Before After Marine Center Approval Signed Via
			Drawing No. N/C Due to scale KW 1/30/04 TH
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.